JOURNAL OF COMBINATORIAL THEORY (B) 21, 90 (1976)

# A Note on a Paper by D. Seinsche

J. C. ARDITTI

*Université Paris-Sud, Bat. 425 91405, Orsay, France*

AND

D. DE WERRA

*École Polytechnique Fédérale de Lausanne, 1000, Lausanne, Switzerland*

*Communicated by W. T. Tutte*

Received April 28, 1975

In a recent paper [2], D. Seinsche shows that if a graph $G$ has no induced subgraph isomorphic to $P_4$, then its chromatic number $\gamma(G)$ is equal to the maximum cardinality $w(G)$ of a clique.

This property is in fact a straightforward consequence of the two following facts:

(a) A graph without induced subgraph isomorphic to $P_4$ is the comparability graph of a forest of rooted trees [3].

(b) A comparability graph is $\gamma$-perfect [1, Chap. 16] i.e., for any induced subgraph $G_A$ $\gamma(G_A) = w(G_A)$.

This theorem amounts to saying that in the graph of an order relation, the maximum cardinality of a clique is equal to the maximum length of an oriented path plus one.

## REFERENCES

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3. E. S. WOLK, A note on the comparability graph of a tree, *Proc. Amer. Math. Soc.* **16** (1965), 17–20.

*Printed in Belgium*